

ABSTRACT OF THE DISCLOSURE

A system and method for monitoring all the characteristic parameters of a DWDM communication system is implemented with two variants. Firstly, this is achieved by means of a specific grating spectrometer displaying a high resolution and a high-speed sampling of the measured values, and secondly
5 by the application of an opto-electronic cross correlator as a purely electronic solution. The grating spectrometer is expediently a particular system in a mixed array according to Ebert and Fastie, wherein the light to be measured passes four times through the grating in a specific manner. The opto-
10 electronic cross correlator can mix the working light with a reference light tunable in terms of its frequency to form an electrical low-frequency signal that is analyzed in a high-impedance operation.